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09/831,745	09/20/2001	Marc Birkner	032326-139	7104

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EXAMINER	
KIM, JUNG W	
ART UNIT	**PAPER NUMBER**
2132	

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/831,745	BIRKNER ET AL.	
	Examiner	Art Unit	
	Jung W. Kim	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-13 and 15-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *24-35* is/are allowed.

6)☒ Claim(s) *1, 3-8, 10-13, 15-23 and 36-38* is/are rejected.

7)☒ Claim(s) *9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is in response to the amendment filed on January 6, 2006

2. Claims 1, 3-13 and 15-38 are pending.

3. Claims 1, 3-13 and 15-36 are amended.

4. Claims 37 and 38 are new.

5. Claims 2 and 14 are canceled.

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Amendment

7. The abstract filed on January 6, 2006 is acceptable; hence the objection is withdrawn.

8. The 112/2nd paragraph rejections to claims 1-36 are withdrawn as the amendment overcomes the 112/2nd paragraph rejections.

Response to Arguments

9. Applicant's allegation that the Chan patent does not disclose means for controlling the transition from a first state to a second state as recited in claim 1 (Remarks, pg. 16, 1st full paragraph) is not persuasive since Applicant does not provide a rational or basis for this allegation: these features, as found in Chan, are outlined in the previous action (mailed 7/6/05) and below. In addition, Applicant argues that Chan

does not teach control means that includes a means for checking the content of the volatile memory, the data memories and the program memories on the object as a function of the state transition to be effected. (Remarks, pg. 16, 1st full paragraph) However, Chan explicitly discloses a feature of the installation of an application into the IC card which meets the limitation in contention: an installed state of an application is achieved when an applet allocates the necessary space and data structure for the operation. (col. 13:7-9) Hence, the rejections are deemed proper.

Claim Objections

10. Claim 16 is objected to because of the following informalities: claim 16 is dependent on claim 14; however, claim 14 is canceled. Appropriate correction is required. For the purpose of expediting prosecution, it is assumed that claim 16 is intended to be dependent on claim 12.

Claim Rejections - 35 USC § 102

11. Claims 1, 7, 10-17 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Chan et al. USPN 6,005,942. (hereinafter Chan)

12. As per claim 1, Chan discloses a device for controlling the life cycle of a portable electronic object, the life cycle being determined by a succession of state transitions, the states determining the services offered by the object, the object comprising a processing unit, a volatile memory, program memories and data memories, each of the

memories having a content defining a plurality of configurations (fig. 1 and figs. 3A and 3B; col. 13:35-14:23), wherein the device comprises means for controlling the transition from a first state to a second state of the portable electronic object, including means for selectively enabling and/or inhibiting state transitions, and means for checking the content of the volatile memory, the data memories and the program memories of the portable electronic object as a function of the state transition to be effected, so that only some transitions are permitted amongst all the transitions between any two possible states of the portable electronic object. (figs. 4-6, 7A, 7B, 9 and 10; col. 12:43-67)

13. As per claim 7, the rejection of claim 1 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the control means comprise means for triggering actions during the processing of a request for transition crossover from a first state to a second state of the portable electronic object. (col. 12:46-50)

14. As per claim 10, it is a claim corresponding to claim 1 and it does not teach or define above the information claimed in claim 1. Therefore, claim 10 is rejected as being anticipated by Chan for the same reasons set forth in the rejections of claim 1.

15. As per claim 11, the rejection of claim 1 under 25 U.S.C. 102(e) is incorporated herein. (supra) In addition, the device is a smart card. (col. 3:22-45)

16. As per claim 12, Chan discloses a method of controlling the life cycle of a portable electronic object, the life cycle being determined by a succession of state transitions, the states determining the services offered by the object, the object comprising a processing unit, a volatile memory, program memories and data memories, each of the memories having a content defining a plurality of configurations, (fig. 1 and figs. 3A and 3B; col. 13:35-14:23) the method being implemented, within the object, following a request to transition from a current state to a new state, according to the following steps:

a. a step of validation of the enabling of the request using means for enabling and/or inhibiting state transitions, so that only certain transitions are permitted amongst all the transitions between any two possible states of the object; a step of evaluating checks on the configuration of the object that are associated with a permitted transition; and a step of changing to the new state of the object if the requested transition is enabled and if the checks on the configuration of the object are satisfied. (figs. 7A and 7B, col. 12:43-67; 16:16-29; 17:15-45: card domain validates and modifies the current state)

The aforementioned cover the limitations of claim 12.

17. As per claim 13, the rejection of claim 12 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the method comprises a step of executing systematic actions associated with the requested transition (col. 12:66-67).

18. As per claims 15 and 17, the rejection of claim 12 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the method further comprises executing positive actions performed if the requested transition is permitted and if the checks associated with the requested transition are satisfied (the actions taken by the card domain are positive actions).

19. As per claim 16, the rejection of claim 12 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the method further comprises executing negative actions if the checks associated with the requested transition are not satisfied (col. 16:63-64: an example of a negative action when a condition is not verified).

20. As per claim 36, the rejection of claim 12 under 35 U.S.C. 102(e) is incorporated herein. (supra) In addition, the method does not enable the crossover of a state transition, from an additive state to a reference state since all the defined states are reference states.

Claim Rejections - 35 USC § 103

21. Claims 3 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan in view of Wagner USPN 5,301,100. (hereinafter Wagner)

22. As per claim 3, the rejection of claim 1 under 35 U.S.C. 102(e) is incorporated herein. (supra) Chan discloses several permitted state transitions, (Chan, figs. 7A, 7B

and 8) but Chan does not disclose using a table of permitted state transitions. However, transition tables are well-known constructs in the art to categorize possible transitions between states; for example, Wagner discloses a table of permitted state transitions, which describes the transitions and actions for each state. (Wagner, fig. 8A) It would be obvious to one of ordinary skill in the art at the time the invention was made to use a table of permitted state transitions since it is desirous to define and identify the possible actions of a finite state system in a simple data structure as known to one of ordinary skill in the art. The aforementioned cover the limitations of claim 3.

23. As per claim 18, it is a claim corresponding to claims 3 and 12, and it does not teach or define above the information claimed in claims 3 and 12. Therefore, claim 18 is rejected as being unpatentable over Chan in view of Wagner for the same reasons set forth in the rejections of claims 3 and 12.

24. Claims 4-6, 8 and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan in view of Wagner and further in view of Silberschatz et al. Database System Concepts, Chapter 2, "Entity-Relationship Model" and Chapter 3, "Relational Model." (hereinafter Silberschatz)

25. As per claims 4-6 and 8, the rejections of claims 3 and 7 under 35 U.S.C. 103(a) are incorporated herein. (supra) In addition, Chan discloses checks made for a state transition and actions taken; moreover, Wagner discloses a state transition table

wherein for a given transition, a set of conditions (checks) are verified, and if valid then a set of actions are actuated. Although, neither Chan nor Wagner suggest a table for checks and a table for actions, this arrangement is a trivial permutation based on a standard entity-relationship data model as taught by Silberschatz: entity sets describe certain objects in the abstract universe and relationship sets describe associations among several entities. (Silberschatz, pgs. 23-28, sections 2.1.1-2.1.2) In the case of the state transition table of Wagner, conditions to be checked and actions that are triggered are objects within a finite state system and would each be trivially separated into its own table. (Silberschatz, pgs. 65-69, section 3.1.2) Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made for the device to use a table of checks to be made per permitted state transition and a table of actions that are triggered during the processing of a request for transition crossover, since it is desirous to establish a relational organization for better coherency of the transition relations between states as known to one of ordinary skill in the art. Moreover, extensions to each table are desirable features to expand the relations of a given table; this enables more flexibility within the schema by establishing more complex characterizations to each entity. Finally, a check engine is a necessary component for a device to utilize the tables comprising the state transition schema. The aforementioned cover the limitations of claims 4-6 and 8.

26. As per claim 19, the rejections of claims 4-8 and 18 under 35 U.S.C. 103(a) are incorporated herein. (supra) In addition, the method includes the steps of:

b. using an entry corresponding to the requested transition, in a table of actions, and executing a program of actions defined by the entry. (Wagner, fig. 8A; col. 11:1-33)

27. As per claim 20, the rejections of claims 4-8 and 18 under 35 U.S.C. 103(a) are incorporated herein. (supra) In addition, the method includes the steps of:

c. using an entry in a table of checks, and executing a program of checks defined by the entry. (Wagner, fig. 8A; col. 11:1-33; Silberschatz, pgs. 65-69, section 3.1.2)

28. As per claims 21 and 23, the rejections of claims 4-8 and 18 under 35 U.S.C. 103(a) are incorporated herein. (supra) In addition, the method includes the step of executing positive actions, if the requested transition is enabled and if the checks associated with the requested transition are satisfied, comprising the steps of:

d. using an entry, corresponding to the requested transition, in a table of actions, and executing a program of actions defined by the entry. (Wagner, fig. 8A; col. 11:1-33; Silberschatz, pgs. 65-69, section 3.1.2; Chan, figs. 7A and 7B, col. 12:43-67; 16:16-29; 17:15-45: the actions taken by the card domain are positive actions)

29. As per claim 22, the rejections of claims 4-8 and 18 under 35 U.S.C. 103(a) are incorporated herein. (supra) In addition, the method includes the step of executing

negative actions if the checks associated with the requested transition are not satisfied, comprising the steps of:

e. using an entry, corresponding to the requested transition, in the table of actions, and executing a program of actions defined by the entry. (Wagner, fig. 8A; col. 11:1-33; Silberschatz, pgs. 65-69; Chen, col. 16:63-64)

30. Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan in view of Grimonprez et al. USPN 5473690. (hereinafter Grimonprez)

31. As per claim 37, the rejection of claim 1 under 35 USC 102(e) is incorporated herein. (supra) Chan does not disclose the checking means determines whether the memories contain data that is invalid for the transition to be effected. Grimonprez discloses a secure method for altering the state of a smart card using a chart of applications and a chart of data tables, wherein the method includes an initial step to record applications on to the card using an instruction (CREATE APPLICTION); success of this instruction being carried out is dependent on the state of an EEPROMS type memory: if the (CLOSE) instruction is previously launched, then the (CREATE APPLICTION) is invalidated by switching the value of the EEPROMS type memory. (col. 8:47-64) Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Grimonprez with the method of Chan such that the checking means determines whether the memories contain data that is invalid for the transition to be effected. One of ordinary skill in the art would be

motivated to do so to ensure that only proper state changes of the smart card are allowed. (Grimonprez, ibid) The aforementioned cover the limitations of claim 37.

32. As per claim 38, the rejection of claim 12 under 35 USC 102(e) is incorporated herein. (supra) Chan does not expressly disclose the evaluation step comprises checking whether the memories have a predetermined configuration associated with the transition from the current state to the new state. Grimonprez discloses a secure method for altering the state of a smart card using a chart of applications and a chart of data tables, wherein the method includes an initial step to record applications on to the card using an instruction (CREATE APPLICTION); success of this instruction being carried out is dependent on the state of an EEPROMS type memory: if the (CLOSE) instruction is previously launched, then the (CREATE APPLICTION) is invalidated by switching the value of the EEPROMS type memory. (col. 8:47-64) Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Grimonprez with the method of Chan such that the evaluation step comprises checking whether the memories have a predetermined configuration associated with the transition from the current state to the new state. One of ordinary skill in the art would be motivated to do so to ensure that only proper state changes of the smart card are allowed. (Grimonprez, ibid) The aforementioned cover the limitations of claim 38.

Allowable Subject Matter

33. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

34. Claims 24-35 are allowed.

Conclusion

35. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Communications Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W. Kim whose telephone number is 571-272-3804. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jung W Kim
Examiner
Art Unit 2132

February 6, 2006

GILBERTO BARRON JR.
SUPERVISORY PATENT EXAMINER
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